AWARD/CONTRACT				1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)				RATING				PAGE OF PAGES			
2. CONTRACT (Proc. Inst. Ident.) NO.						3. EFFECTI	. EFFECTIVE DATE 4. REQUISITION/PUR			CHASE REQUEST/PROJECT NO.					
EP-C-17-031/68HERC20F0049				'n					0C PR-ORD-1		•				
5. ISSU	ED BY	CODE	(CAD		6. A	ADMINIS	TEREI	D BY (If other	than Ite	m 5)	CODI	E		
26 W Mail	est Cod	onmental Protection A Martin Luther King Dr e: W136 ti OH 45268-0001	_												
7. NAM	E AND A	DDRESS OF CONTRACTOR (No., street,	country, State an	d ZIP Cod	de)	ļ			8. DELIVE		1	Y OTL	HER (See he	olow)	
TETR	A TE	CH, INC.								ORIGIN	R PROMPT PAYME		HER (See be	iow)	
1030	6 EA	orge Townsend TON PL STE 340 VA 22030								and and any of the control of the co					
										10. SUBMIT INVOICES (4 copies unless otherwise specified)					
CODE	100	549560 [ACILITY CODE						TO THE A	DDRESS	S SHOWN IN				
		RK FOR CODE		RD DC		12.	PAYME	NT WIL	L BE MADE	BY		CODE	RTP FM	AC.	
Office of Research and Development US Environmental Protection Agency 1200 Pennsylvania Avenue, NW MC: 8101R Washington DC 20460				RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711											
		FOR USING OTHER THAN FULL AND O			×	14. ACCOUNTING AND APPROPRIATION DATA									
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15A. ITEM NO 15B. SUPPLIES/SERVICES								15C. QUANTIT	15D. Y UNIT	15E. UNIT PR	ICE	15F. AMOUNT			
		Continued						15G. 1	FOTAL AMOL	INT OF (CONTRACT			•	104,713.67
					16. TABL	F OF	F CONTI				<u> </u>			Ψ	104,713.07
(X)	SEC.	DESCRIPTION			PAGE(S)			SEC.	DESCRIP	TION					PAGE(S)
	PART I	- THE SCHEDULE			yr.		F	PART II	- CONTRAC	T CLAU	SES				
	Α	SOLICITATION/CONTRACT FORM						1	CONTRAC	T CLAU	SES				
	В	SUPPLIES OR SERVICES AND PRICES				-	F	PART II	I		NTS, EXHIBITS AN	D OTH	ER ATTACH.		
	С	DESCRIPTION/SPECS./WORK STATEM	IENT			\dashv		J	LIST OF A			FIONE			
	D E	PACKAGING AND MARKING INSPECTION AND ACCEPTANCE				_	Ī				NS AND INSTRUC				
	F	DELIVERIES OR PERFORMANCE						K	CHICAGO AND ARROWS AND ARROWS		NS, CERTIFICATION NTS OF OFFEROR		,		
	G	CONTRACT ADMINISTRATION DATA						L	INSTRS.,	CONDS.	, AND NOTICES TO	OFFE	RORS		
	Н	SPECIAL CONTRACT REQUIREMENTS	3					М	EVALUATI	ON FAC	TORS FOR AWARD)			
		CONTRACTING OFFICER WILL COMPLET				_									
17. \(\subseteq \) CONTRACTOR' S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.) 19A. NAME AND TITLE OF SIGNER (Type or print)				and ving	18. ☐ SEALED-BID AWARD (Contractor is not required to sign this document.) Your bid on Solicitation Number 68 HERC19R0075 , including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your bid, and (b) this award/contract. No further contractual document is necessary. (Block 18 should be checked only when awarding a sealed-bid contract.) 20A. NAME OF CONTRACTING OFFICER Andrea Dehne					on ,					
19B. N	AME OF	CONTRACTOR		19C. DA	TE SIGNED	20	B. UNIT	ED ST	ATES OF AM	ERICA			20	0C. DATE S	SIGNED
BY (Si	gnature	of person authorized to sign)				BY			3 (. C. Z. the Contracti		SIGN	RONG		11/14	1/2019

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED EP-C-17-031/68HERC20F0049

PAGE 2 OF 2

NAME OF OFFEROR OR CONTRACTOR

TETRA TECH, INC.

EM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	DUNS Number: 198549560				
	TOCOR: Stephen LeDuc Max Expire Date: 11/12/2021				
	Delivery: 11/12/2021				
	Period of Performance: 11/14/2019 to 11/12/2021				
	Fully Funded Firm Fixed Price Task Order				
0001	Task Order Issuance Line Item: Technical Support				104,713.
	for EPA/ORD Ecological Assessment Programs				
	Description Tofor				
	Accounting Info: 19-20-C-262W000-000FK6XR1-2532-26A5C-19262WC918-00				
	1 BFY: 19 EFY: 20 Fund: C Budget Org: 262W000				
	Program (PRC): 000FK6XR1 Budget (BOC): 2532 Cost:				
	26A5C DCN - Line ID: 19262WC918-001				
	Funding Flag: Complete				
	Funded: \$60,000.00				
	Accounting Info:				
	19-20-C-262W000-000FK6XR2-2532-26A5C-19262WC918-00				
	2 BFY: 19 EFY: 20 Fund: C Budget Org: 262W000				
	Program (PRC): 000FK6XR2 Budget (BOC): 2532 Cost:				
	26A5C DCN - Line ID: 19262WC918-002				
	Funding Flag: Complete				
	Funded: \$15,000.00				
	Accounting Info:				
	19-20-C-26D2000-000FK6XR1-2532-26A5C-19262WC918-00				
	3 BFY: 19 EFY: 20 Fund: C Budget Org: 26D2000				
	Program (PRC): 000FK6XR1 Budget (BOC): 2532 Cost:				
	26A5C DCN - Line ID: 19262WC918-003				
	Funding Flag: Complete				
	Funded: \$29,713.67				
	Delivery-Invoice Payment Schedule shall not				
	exceed a frequency greater than once a month and				
	90% of the task order price. Acceptance for				
	invoicing is based on deliverable approval by the				
	TOCOR. For efficient processing IAW FAR clause				
	52.232-32, performance based payment invoicing				
	amounts will not be submitted until the TOCOR				
	provides deliverable approval. The TOCOR will				
	notify Tetra Tech within 14 days of submission of				
	a deliverable of EPAs intention to approve or				
	disapprove.				
	TOCOR: Stephen				
	LeDuc/(202)564-7094/leduc.stephen@epa.gov				
	ALTOCOR: Thomas				
	Johnson/(202)564-6677/johnson.thomas@epa.gov				

Performance Work Statement Contract #EP-C-17-031

PR-ORD-19-01518 SOL 68HERC19R0075 TO #: 68HE0C20F0049

I. Title: Assessing the potential effects of wildland fire and management on air quality and human health

II. EAS Short Title: Wildland fire effects on air and human health

III. Period of Performance: Through two years following award

IV. Task Order COR:

Stephen LeDuc, PhD

U.S. Environmental Protection Agency Office of Research and Development National Center for Environmental Assessment (8623R) 1200 Pennsylvania Avenue, NW Washington, DC 20460 202-564-7094 (phone) leduc.stephen@epa.gov

Alternate Task Order COR:

Thomas Johnson, PhD
U.S. Environmental Protection Agency Office of Research and Development
National Center for Environmental Assessment (8623-R) 1200 Pennsylvania Avenue, NW
Washington, DC 20460
202-564-6677 (phone)
johnson.thomas@epa.gov

V. Introduction:

The EPA Office of Research and Development's (ORD) Exposure Analysis and Risk Characterization Group works to build the capacity of EPA program and regional offices, and other decision-makers to assess and respond to potential effects on environmental quality. Research and assessment activities broadly support EPA's mission and responsibilities.

Wildland fire includes both wildfire and prescribed burning. Here we use the term "wildfire" to mean unplanned events and "wildland fire" to mean both wildfire and prescribed burning. Over the past 30 years, an average of 5 million acres of wildlands have burned annually, and this average has doubled in recent years. Like other natural disasters, such as flooding, wildfire is often stochastic, spatially concentrated, and catastrophic when it occurs. Wildfires threaten life, property, and pose health risks via smoke emissions and other means. By contrast, prescribed burning is a management action meant to reduce the impacts of uncontrolled wildfire, yet this practice may also affect air quality, water quality, and human health.

Air quality, water quality, and human health are three of EPA's core mission areas that may be affected by wildland fire. Among other impacts, wildland fire emits particulate matter and other pollutants to the

atmosphere, potentially affecting human health. Burning in urban areas could be especially problematic, with the combustion of human-made materials, such as plastic siding or pipes.

EPA Regional staff are the primary audience for this effort, given that Regional staff are on the front-lines of the Agency's response to wildland fire. EPA will particularly focus on Regions 4, 8, 9, and 10 (and possibly 7), given the prevalence of wildfire in those Regions. EPA's programmatic offices are also a key audience, particularly the Office of Air and Radiation (OAR), the Office of Air Quality Planning and Standards (OAQPS) within OAR, the Office of Water (OW), and the Office of Land and Emergency Management (OLEM). This research will also identify gaps of knowledge for ORD and the Agency as a whole. Finally, local and state managers (e.g., state Departments of Environmental Quality) may be a secondary audience for this work.

This TO will focus on summarizing the air quality and human health effects of wildland fire (again, both prescribed burning and wildfire). To do this will involve identifying the air quality and human health endpoints that are both affected by wildland fire and align with EPA's mission and responsibilities. The endpoint list will include factors modifying the frequency and severity of effects to both air quality and human health. The endpoint list will serve as scaffolding for information gathered from EPA resources identified and the scientific literature. The scientific literature is more robust on this topic relative to fire effects on water quality. Therefore, this TO will not require a comprehensive, systematic review of all relevant literature, but should be a selection that represents and summarizes the current state-of-the science on this topic (e.g., 10 years of review papers plus other highly cited papers).

VI. Specific Tasks and Deliverables:

Task 1. Establish communication with the TOCOR and develop a QAPP

SubTask 1.1. Establish communication

Within 3 days of TO award and over the course of 30 days, the Contractor shall schedule a series of biweekly conference calls (not to exceed 1 hour) or at the frequency requested by the TOCOR, with the TOCOR and appropriate contractor staff to clarify outstanding questions and confirm the schedule and specific tasks. In collaboration with the TOCOR, the Contractor shall also establish a schedule for regular progress reports, project meetings, and other communications throughout the period of performance of this TO.

Deliverable 1.1.A: Brief, written progress reports as email to the TOCOR. Due monthly or upon request by the TOCOR for the duration of this TO.

Deliverable 1.1.B: Project meetings and other communications, such as conference calls, due every 3 weeks or upon request by the TOCOR for the duration of this TO.

SubTask 1.2. Development of a QAPP

All work conducted under this TO shall be performed pursuant to an EPA approved Quality Assurance Project Plan (QAPP). The contractor shall develop a QAPP within 2 weeks following TO award for review and approval by the TOCOR and the EPA QA Manager. The QAPP shall outline the approach and measures the Contractor will implement to ensure a high standard of quality in data analysis and written deliverables. The QAPP shall be in conformance with EPA's *Requirements for Quality Assurance Project Plans* (EPA QA/R-5).

All electronic deliverables (i.e., computer files) shall be submitted in a format mutually agreed upon by the TOCOR and the Contractor.

The contractor shall not initiate tasks related to any items needing QA review until the TOCOR furnishes, in writing, a notice that the QAPP has been accepted by EPA.

Deliverable 1.2.A: A draft QAPP submitted to the TOCOR and QA Manager for review. Due 2 weeks after being issued the TO.

Deliverable 1.2.B: A revised QAPP addressing TOCOR comments on the draft submitted to the TOCOR for approval. Due 1 week after receiving comments on Deliverable 1.2.A.

Task 2. Assist with and finalize wildland fire, air quality, and human health endpoint list

It is critical to understand activities to date within EPA's Office of Research and Development (ORD) on wildland fire, air quality and human health; and second, ORD scientist and EPA's Regional and Programmatic needs regarding wildland fire, air quality, and human health endpoints. To do that, a series of structured phone conversations and/or emails will be conducted by the TOCOR with ORD scientists and Regional/Programmatic stakeholders. In collaboration with the Contractor, the TOCOR will draft a conceptual model to then guide the development of an endpoint list, which will also include a list of modifying factors. The TOCOR will then seek feedback from ORD scientists and stakeholders on this list. The TOCOR will also seek to identify current EPA resources regarding wildland fire and the endpoints.

The phone calls and emails will be between the TOCOR and key staff contacts in Regions 4, 7, 8, 9, 10, OAR, OAQPS, and possibly OLEM. The number of key people identified will determine the number of phone calls needed—it is likely to be 2 to 3, but with the possibility for more. The phone calls are likely to last 1 hour at a time.

The TOCOR will lead the meetings (e.g., via phone calls), but the contractor shall provide a support role, namely documenting the conversations. There will be no direct outreach from the contractor to EPA regional or programmatic staff. The contractor shall document comments on the endpoint list. These conversations may be spread out across a series of weeks, depending upon schedules.

Deliverable 2.A: Notes documenting meetings with Regions and program offices. One set of notes per meeting, plus any comments on endpoint list. Due 1 day after each phone call.

Deliverable 2.B: Revised endpoint list as required by the TOCOR and summary of relevant EPA resources identified. Due 2 weeks after completion of all phone calls/emails between TOCOR and key EPA staff members.

Task 3. Analyze EPA resources and published, scientific literature on wildland fire effects on endpoints; factors affecting the severity and/or frequency of effects; and identification of knowledge gaps

The contractor shall use both EPA resources identified in Task 2 and analyze the published, scientific literature to synthesize wildland fire effects on endpoints identified in Task 2. In collaboration with the TOCOR, the contractor shall develop a literature review search and analysis strategy for TOCOR comment and approval, including the use of EPA resources. As noted previously, the literature on wildland fire, air quality, and human health is more robust than the literature on water quality; therefore, this TO will not require a comprehensive, systematic review of all relevant literature, but should be a selection that represents and summarizes the current state-of-the science on this topic (e.g., 10 years of review papers plus other highly cited papers). The contractor may need to do some preliminary, test searches to ascertain the amount of literature available on the topic prior to the creation of a search strategy. If the contractor determines after preliminary test searches, the literature for both air quality and human health requires too much effort, human health endpoints can be excluded from the literature review. Otherwise, each endpoint and modifying factor in the endpoint list should be addressed. If, during the literature search, endpoints or factors potentially relevant to EPA's mission and responsibilities are identified as missing from the list, these shall be quickly brought to the attention of the TOCOR for consideration. Information on the combination of factors that could lead to worst-case scenarios or the greatest vulnerability to fire shall be noted. If information is limited or non-existent on any particular endpoint or factor, this should be identified as a gap in knowledge. The results should then be summarized in quantitative and narrative form.

The contractor shall synthesize this information into a MS Word document. This document should have four main parts set up by the conceptual model:

- (1) a summary of EPA's air quality (and potentially human health if included in literature review) related responsibilities likely to be affected by wildfire;
- (2) a synthesis of wildfire effects on the relevant air quality (and again potentially human health) endpoints;
- (3) factors affecting the frequency and severity of effects; and
- (4) gaps in knowledge. The order of these main parts may vary.

The contractor shall write this document in a style similar to a peer-reviewed journal article, including literature cited and an abstract.

Deliverable 3.A: Literature review search and analysis strategy for TOCOR comment and approval. Due 1 month after receiving draft endpoint list from TOCOR.

Deliverable 3.8: Draft outline of document synthesizing wildland fire effects on endpoints identified in Task 2. Includes discussion of modifying factors and identification of knowledge gaps. Due 5 months after receiving draft endpoint list from TOCOR.

Deliverable 3.C: Draft document synthesizing results on wildland fire effects on endpoints identified in Task 2. Includes discussion of modifying factors and identification of knowledge gaps. Due 10 months after receiving draft endpoint list from TOCOR.

Deliverable 3.D: Final document synthesizing results on wildland fire effects on endpoints identified in Task 2. Includes discussion of modifying factors and identification of knowledge gaps. Due 2 months after delivery of EPA comments on Deliverable 3.C, including any comments from Regional or Programmatic personnel.

Schedule of Milestones and Deliverables:

Task No.	DELIVERABLES	Schedule			
1	1.1.A. Progress reports	-Due monthly			
	1.1.B. Other communication	-Due upon request by TOCOR			
	1.2.A. Draft QAPP	-Due 2 weeks after award			
	1.2.B. Final QAPP	-Due 1 week after comments on			
		1.2.A.			
2	2.A. Notes	-Due 1 day after each phone call			
	2.B. Revised endpoint list	-Due 1 week after end of all			
	and identification of EPA	stakeholder phone calls			
	resources				
3	3.A. Search and analysis	-Due 1 month after receiving draft			
	strategy	endpoint list from TOCOR.			
	3.B. Draft outline	-Due 5 months after receiving			
		draft endpoint list from TOCOR			
	3.C. Draft synthesis	-Due 10 months after receiving			
	document	draft endpoint list from TOCOR			
	3.D. Final synthesis	-Due 2 months after delivery of			
	document with Endnote	EPA comments on 3.C.			
	library				

VII. Acceptance Criteria:

The Contractor shall prepare high quality deliverables. The Deliverables shall be edited for grammar, spelling, and logic flow. The technical information shall be reasonably complete and presented in a logical, readable manner. Figures submitted shall be of high quality similar to presentations developed for national scientific forums and should be formatted as jpeg or png files. Comments on conceptual model can be done on PowerPoint 2010 compatible or Adobe pdf slides. Text deliverables shall be provided in Microsoft Word 2010 or compatible format.

AMENDMENT OF SOLICITATION/MODIFIC.	ATION OF C	ONTRACT		CONTRACT ID CODE	PAG	GE OF PAGES		
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE	DATE 4	4. REQ	UISITION/PURCHASE REQ. NO.	5. PROJE	CT NO. (If applicable)		
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6. ISSUED BY CODE	CAD		7. ADN	INISTERED BY (If other than Item 6)	CODE			
CAD US Environmental Protection 26 West Martin Luther King D Mail Code: W136 Cincinnati OH 45268-0001	Agency				L			
8. NAME AND ADDRESS OF CONTRACTOR (No., street FETRA TECH, INC. Attn: John Hochheimer 10306 EATON PL STE 340 FAIRFAX VA 22030	, county, State and	ZIP Code) (3	9B. 4 10A EF	AMENDMENT OF SOLICITATION NO. DATED (SEE ITEM 11) . MODIFICATION OF CONTRACT/ORDER NOC-17-031 HERC20F0049 5. DATED (SEE ITEM 13)	Э.			
CODE 1985/19560	FACILITY COD			and the same of th				
				1/14/2019 ENTS OF SOLICITATIONS				
separate letter or electronic communication which ind RECEIVED AT THE PLACE DESIGNATED FOR THE OFFER. If by virtue of this amendment you desire to each letter or electronic communication makes referent 2. ACCOUNTING AND APPROPRIATION DATA (If required See Schedule 13. THIS ITEM ONLY APPLIES TO METERS AND APPLIES AND APPLIES TO METERS AND APPLIES AND APPLIES AND APPLIES TO METERS AND APPLIES AND APP	pies of the amen udes a reference RECEIPT OF O change an offer a noe to the solicita uired)	dment; (b) By acknowledge to the solicitation and ameFFERS PRIOR TO THE Halready submitted, such chation and this amendment,	endme OUR A hange and is	eipt of this amendment on each copy of the off nt numbers. FAILURE OF YOUR ACKNOWL ND DATE SPECIFIED MAY RESULT IN REJE may be made by letter or electronic communica	er submitte EDGEMEN CTION OF ation, provid ecified.	d ; or (c) By T TO BE YOUR ded		
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: D. OTHER (Specify type of modification and authority)								
E. IMPORTANT: Contractor is not	□ in required t	o sign this document and r	coturn	copies to the issuing	office			
UNS Number: 198549560 OCOR: Stephen LeDuc Max Expire Date: 11/12/2021 he purpose of this modification is to incorporate the attached EPA blanket administrative odification signed by Raoul Scott on July 30, 2020. All other terms and conditions remain nchanged. ayment: eriod of Performance: 11/14/2019 to 11/12/2021 elivery-Invoice Payment Schedule shall not exceed a frequency greater than once a month nd 90% of the task order price. Acceptance for invoicing is based on deliverable approval y the TOCOR. For efficient processing IAW FAR clause 52.232-32, performance based payment nvoicing amounts will not be submitted until the TOCOR provides deliverable approval. The ontinued Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect. 5A. NAME AND TITLE OF SIGNER (Type or print) 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Andrea Dehne								
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED	16B. l	JNITED STATES OF AMERICA		16C. DATE SIGNED		
(Signature of person authorized to sign)			<u>(2)</u>		ECTRONN MINATUR			

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NAME OF OFFEROR OR CONTRACTOR TETRA TECH, INC.

EM NO.	SUPPLIES/SERVICES	QUANTITY		UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	TOCOR will notify Tetra Tech within 14 days of	1			
	submission of a deliverable of EPAs intention to				
	approve or disapprove.				
	TOCOR: Stephen				
	LeDuc/(202)564-7094/leduc.stephen@epa.gov				
	ALTOCOR: Thomas				
	Johnson/(202)564-6677/johnson.thomas@epa.gov				
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2. AMENDME	NT/MODIFICATION NUMBER	3. EFFECTIVE DATE 08/13/2020	4. REQUISITION/PURCHASE	 E REQUISITION NUMBER	5. PROJECT I	NUMBER ((If applicable)
6. ISSUED BY	CODE		7. ADMINISTERED BY (i	f other than Item 6)	CODE		
OMS/ARM US Enviror 1200 Penr	Scott, Director I/OAS/Policy, Training and Over nmental Protection Agency, Mai nsylvania Avenue, NW n, DC 20004	rsight Division I Code 3802R			L		
	ADDRESS OF CONTRACTOR (Number, str	eet, county, State and ZIP Co	ode)	(X) 9A. AMENDME	NT OF SOLICITA	ATION NUL	MRER
To All EPA	Contractors			9B. DATED (SEI 10A. MODIFICA To all EPA (10B. DATED (SE	EITEM 11) TION OF CONTI	RACT/ORI	DER NUMBER
CODE		CILITY CODE					
	11. THIS ITE	M ONLY APPLIES TO	AMENDMENTS OF S	OLICITATIONS			
or (c) By separa RECEIVED AT by virtue of this communication	ng items 8 and 15, and returning ate letter or electronic communication which is THE PLACE DESIGNATED FOR THE RECE amendment you desire to change an offer al makes reference to the solicitation and this a	ncludes a reference to the sol EIPT OF OFFERS PRIOR TO ready submitted, such change mendment, and is received p	icitation and amendment num THE HOUR AND DATE SPE e may be made by letter or ele rior to the opening hour and d	bers. FAILURE OF YO CIFIED MAY RESULT I extronic communication, ate specified.	UR ACKNOWLE IN REJECTION (provided each le	DGMENT OF YOUR	TO BE OFFER. If
			DIFICATIONS OF COI R NUMBER AS DESC				
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PUR NUMBER IN ITEM 10A.		1 16 17			NTRACT	ORDER
X	B. THE ABOVE NUMBERED CONTRACT/ appropriation data, etc.) SET FORTH IN	ORDER IS MODIFIED TO RE ITEM 14, PURSUANT TO TH	EFLECT THE ADMINISTRATI HE AUTHORITY OF FAR 43.1	VE CHANGES (such as 103(b).	changes in payi	ng office,	
	C. THIS SUPPLEMENTAL AGREEMENT IS		NT TO AUTHORITY OF:				
	D. OTHER (Specify type of modification and	a authority)			·		
		s required to sign this			s to the issuir	ng office	
This contra 4.2105, red Telecomm	act/order is being modified in acquiring contracting officers to incurrent unications and Video Surveillaned for the full text version of FA	cordance with the ap clude FAR clause 52. ce Services or Equip	plicability instructions 204-25, Prohibition o ment.	s in interim FAR (on Contracting fo	Case 2019-0 r Certain	009, an	d FAR
Except as provi	ded herein, all terms and conditions of the do	cument referenced in Item 9A	or 10A, as heretofore change	ed, remains unchanged	and in full force	and effect.	
	ND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF Raoul D. Scott, Dire	CONTRACTING OFFIC	CER (Type or pri	nt)	Division
	1					- 3	
15B. CONTRA	CTOR/OFFEROR	15C. DATE SIGNED	RAOUL SCO		RAOUL SCOTT 1:40:17 -04'00'	16C. DA	TE SIGNED
(S	ignature of person authorized to sign)	_	(Signature	of Contracting Officer)			

52.204-25 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

As prescribed in 4.2105(b) and in the applicability instructions in interim FAR Case 2019-009, insert the following clause:

Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment (Aug 2020)

(a) <u>Definitions</u>. As used in this clause—

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means—

- (1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);
- (2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);
- (3) Telecommunications or video surveillance services provided by such entities or using such equipment; or
- (4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means-

- (1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;
- (2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled-

- (i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or
 - (ii) For reasons relating to regional stability or surreptitious listening;
- (3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);
- (4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);
- (5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or
- (6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition. (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

- (2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.
 - (c) Exceptions. This clause does not prohibit contractors from providing—
- (1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
- (2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.
 - (d) Reporting requirement.
- (1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at https://dibnet.dod.mil. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at https://dibnet.dod.mil.
- (2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause
- (i) Within one business day from the date of such identification or notification: the contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.
- (ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) *Subcontracts*. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)